

New Haven, Hartford, Springfield Commuter Rail Study

Steering Committee Meeting #4

June 30, 2004

Connecticut Department of
Transportation



Agenda

- Review of Minimum and Maximum Build Scenarios
- Service Implementation Alternatives
- Additional Menu of Options
- Steering Committee Feedback

Minimum Build Scenario

- Nine Existing Stations
 - New Haven Union Station
 - New Haven State Street
 - Wallingford
 - Meriden
 - Berlin
 - Hartford Union Station
 - Windsor
 - Windsor Locks
 - Springfield Union Station
- 30-35 minute train frequency
- No additional tracks
- Capital Cost Includes:
 - 5 locomotives
 - 9 coach cars and 5 cab cars
 - Maintenance facility
 - Expanded parking at four stations (510 spaces)
 - Wallingford, Meriden, Berlin and Windsor

Minimum Build Conclusions

- Estimated 1,800 daily trips (900 round trips)
- Capital Costs = \$86 million
- Operating Costs = \$7.1 million per year
- Operating Deficit = \$6.2 million per year
 - 12.3% farebox recovery rate (SLE = 14%, MN-NH = 65%)
 - Subsidy of \$13.80 per passenger (SLE = \$18, MN-NH = \$2.40)
- Requires very high degree of schedule adherence
- Not feasible in real world
- Reliability will require adding several second track segments

Maximum Build Scenario

- Existing stations plus additional ones in:
 - North Haven / Hamden
 - Wharton Brook Station
 - Newington
 - North Meadows
 - Bradley International Airport
 - Enfield
 - South Springfield
- 15 minute train frequency in peak
- 60 minute train frequency in off-peak
- Capital Costs Include:
 - 17 locomotives and 51 coach and cab cars
 - Maintenance facility
 - Double Track entire line
 - Improved Stations (high-level platforms, overhead pedestrian crossing, enclosed station buildings, additional parking)
 - Rail connection to airport

Max Build Conclusions

- Estimated 5,000 weekday trips
- Weekend service = 2,000 trips
- Includes Amtrak riders except Vermonter
- Capital Costs = \$554 million
- Operating Costs = \$48.3 million per year
- Operating Deficit = \$44.7 million per year
 - 7.5% farebox recovery rate (SLE = 14%, MN-NH = 65%)
 - Subsidy of \$32.56 per passenger (SLE = \$18, MN-NH = \$2.40)
- Max Build has extremely high capital cost
- 15 minute headways lead to higher operating and capital cost and lower farebox recovery

Implementation Alternatives

- Four feasible alternatives for initial service implementation
- All have 30 minute service in peak only (supplemented by Amtrak trains)
- All use existing stations along line
- Additional options can be added from menu of additional elements

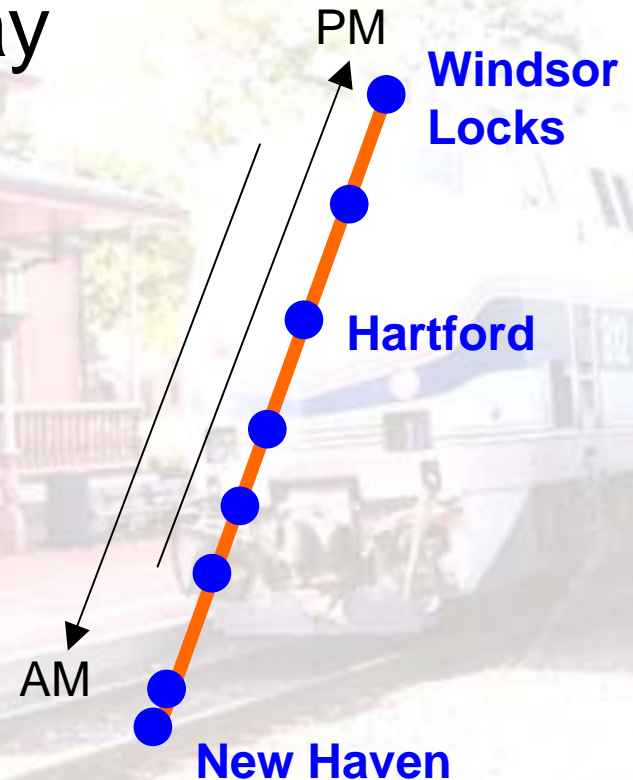
Implementation Alternatives

CT1	CT2	Bi-State1	Bi-State2
30 minute peak hr one-directional service (SB AM, NB PM)	30 minute peak hr bi-directional service	30 minute peak hr bi-directional service	30 minute peak hr bi-directional service
No new double track	Double track sections added where needed	Double track sections added where needed	Double track sections added where needed
Windsor Locks to New Haven	Windsor Locks to New Haven	Springfield to New Haven	Springfield to New Haven
No adjustments to Amtrak schedule, but fares would be adjusted for commuter use	No adjustments to Amtrak schedule, but fares would be adjusted for commuter use	No adjustments to Amtrak schedule, but fares would be adjusted for commuter use	Amtrak schedule adjusted to accommodate ideal meet times in urban centers



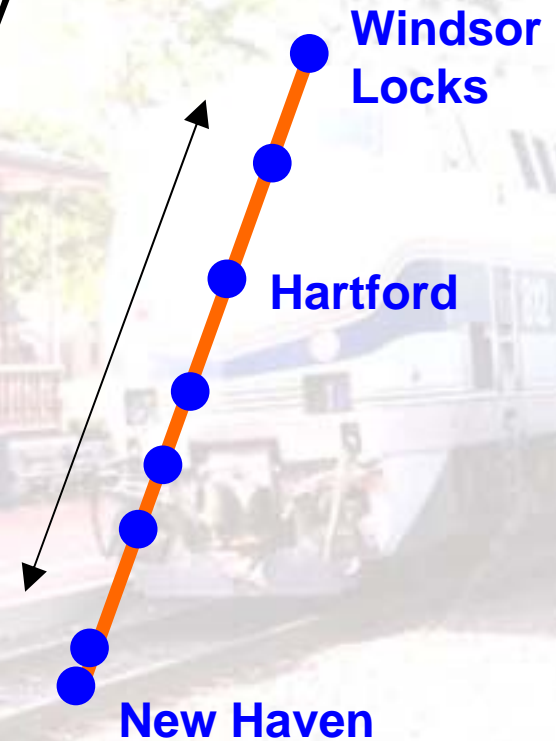
Alternative CT1

- 6 one-way trips per weekday
- No new double track
- 872 daily trips (+Amtrak)
- \$80.8 million Capital Cost
- \$3.0 million Operating Cost
- \$368,000 Revenue
- 12.3% Fare box Recovery



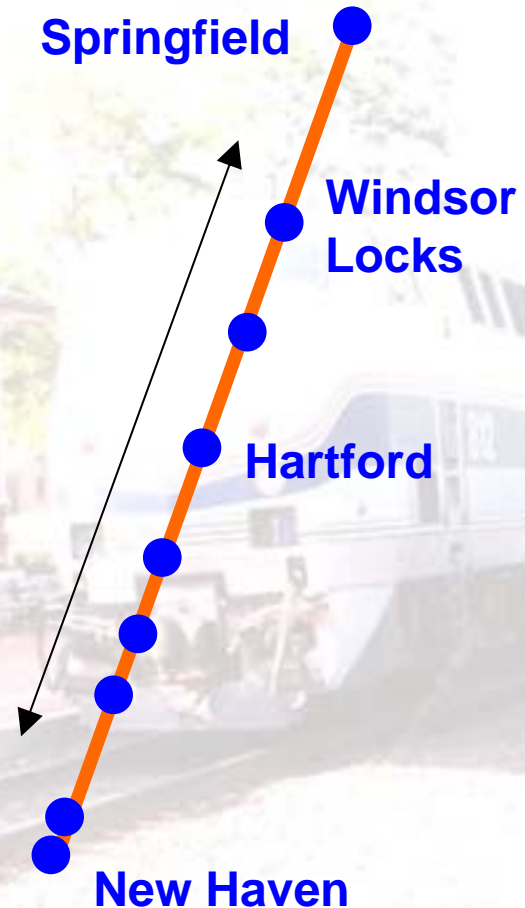
Alternative CT2

- 14 one-way trips per weekday
- 12.4 miles new double track
- 1,485 daily trips (+Amtrak)
- \$121.4 million Capital Cost
- \$7.0 million Operating Cost
- \$667,000 Revenue
- 9.6% Fare box Recovery



Alternatives Bi-State 1 & 2

- 14 one-way trips per weekday
- 15.6 miles new double track
- 1,767 daily trips (+Amtrak)
- \$139.4 million Capital Cost
- \$8.8 million Operating Cost
- \$869,000 Revenue
- 9.9% Fare box Recovery



Implementation Alternatives

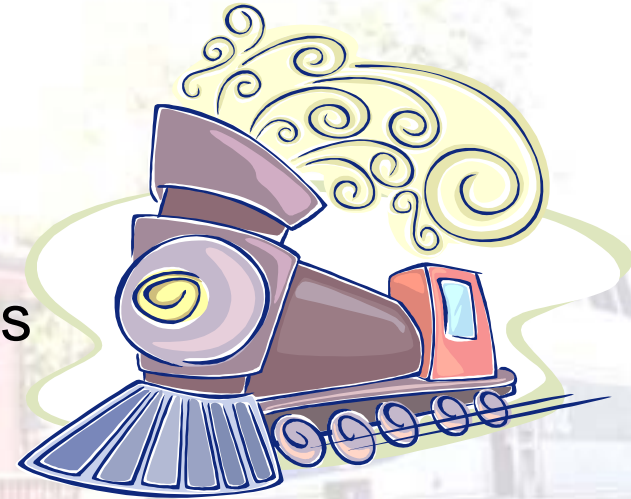
	CT1	CT2	Bi-State1	Bi-State2
	Within CT One-directional service Existing track	Within CT Bi-directional service	Service to Springfield No major Amtrak adjustments	Service to Springfield Adjusted Amtrak schedule
Capital cost	\$80.7 million	\$121.4 million	\$139.4 million	\$139.4 million
Operating cost	\$3.0 million	\$7.0 million	\$8.8 million	\$8.8 million
New Daily trips	872	1,485	1,767	1,767

Menu of Additional Options

- Off-peak Service
- Weekend Service
- New Stations:
 - Enfield
 - Newington
 - Wharton Brook
 - North Haven
- Rail Airport Connection (alternatives include shuttle bus connection)
- Full high level platforms at all stations
- Grade-separated pedestrian facilities at all stations
- New or updated station buildings at all stations

Additional Service Options

- Off-peak Service
 - \$1.3 million per round-trip run (5 day week)
 - Maximum build = 577 additional trips (8 trains)
- Weekend Service
 - \$550,000 per round-trip run (2 day week)
 - Maximum Build = 1,964 additional trips (10 trains)
- Rail Connection to airport
 - Estimated \$28 million capital
 - No appreciable ridership difference



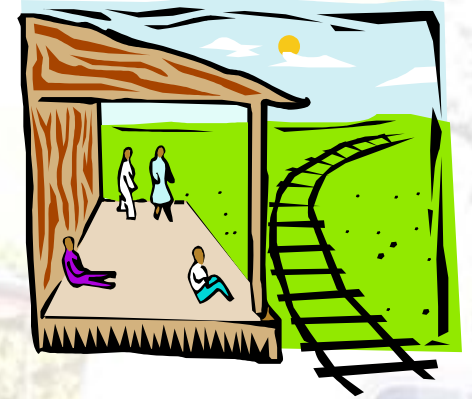
New Stations

- Capital cost
 - \$1.4 - \$2.2 million minimum
 - \$9.5 - \$10.3 million maximum
- Enfield = 210 daily trips
- Newington = 250 daily trips
(with busway)
- Wharton Brook = 156 daily trips
- North Haven = 138 daily trips



Additional Station Options

- High-level platforms
 - \$3.85 million (based on SLE)
- Grade-separated pedestrian crossing
 - \$3.85 million (based on SLE)
- Station buildings
 - \$0.8 million (based on National experience)



Steering Committee Feedback



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What's Next

- Selection of Recommended Alternative
- Refinement of Recommended Alternative in Operating Plan
- Town Meetings to discuss station plans
- Public Meetings in fall of 2004
- Select proposed action and publish final report by end of 2004